Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte DOUGLAS W. JOHNSON,
TODD P. FRACEK,
and
JEFFREY F. BOIGENZAHN

_____

Appeal No. 1997-2855
Application No. 08/340,546

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ON BRIEF

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Before THOMAS, HAIRSTON, and BARRY, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 2, 4 through 13 and 15 through 23.

The disclosed invention relates to a method and system for registering a transducer assembly at a location that is

proximate to a load/unload ramp disposed at the outer periphery of a data storage disk. A data zone starting location on the disk is established proximate the ramp.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

> 1. A method of optimizing the location of a data zone on a data storage disk of a data storage system, the data storage system including a transducer assembly mounted to an actuator for transferring information to and from the disk, and a ramp disposed proximate the outer periphery of the disk for unloading and loading the transducer assembly to and from the disk, the method comprising the steps of:
>
> registering the transducer assembly at a first location of the disk proximate the ramp;
>
> writing servo information indicative of a starting location of the data zone to the disk at the first disk location;
>
> moving the transducer assembly from the first disk location toward an inner diameter location of the disk; and
>
> writing servo information indicative of the data zone to the disk between the first disk location and the inner diameter location of the disk with reference to the first disk location;
>
> wherein writing servo information indicative of the starting location of the data zone at the first disk location biases the data zone toward the outer periphery of the data storage disk by registering the starting location of the data zone proximate the ramp.

The references relied on by the examiner are:

Saito	4,599,659	Jul. 8, 1986
Morehouse et al. (Morehouse)	5,377,065	Dec. 27, 1994
	(effective filing date Dec. 19, 1990)	

Claims 1, 2, 5 through 7, 11 through 13, 15 and 19 through 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over appellants' admitted prior art in view of Saito.

Claims 4, 8 through 10 and 16 through 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over appellants' admitted prior art in view of Saito and Morehouse.

Reference is made to the briefs (paper numbers 9 and 11), the final rejection (paper number 6) and the answer (paper number 10) for the respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the 35 U.S.C. § 103 rejections of claims 1, 2, 4 through 13 and 15 through 23.

Appellants and the examiner agree that in the appellants' admitted prior art the data zone 73 (Figure 3) is biased toward, and registered with respect to, the inner diameter of the data storage disk, and not the outer diameter of the disk (final rejection, page 3; brief, page 9). According to the examiner (final rejection, pages 3 and 4):

> The Saito patent prevents accidental generation of a "track zero" signal. According to Saito, a track zero signal should be generated only when the magnetic head is driven in the outer peripheral direction of the floppy disk, and inhibited when the head is driven in the inner direction.
>
> At the time of the invention, it would have been obvious to one having ordinary skill in the art to have applied Saito's teachings to [appellants' admitted prior art] AAPA. The combination would have moved "track zero" to a location near the transducer ramp.
>
> The motivation for this modification would have been to more accurately set a relative position between the magnetic head and the disk, as taught by Saito. The combination would thereby satisfy the claim limitations of biasing the data zone toward the outer periphery of the data storage disk.

Appellants argue (brief, pages 9 and 10) that "*Saito* is not directed to a servo writing or disk formatting procedure, nor does *Saito* disclose or suggest any method for writing servo information to a data storage disk," "*Saito* presumes the existence of servo tracks," and "*Saito* merely teaches . . . preventing generation of a spurious track zero signal." We agree with appellants' arguments. The mere fact that "a track zero signal [in Saito] is generated only when the magnetic head is driven in the outer peripheral direction of the floppy disk and reaches a track zero position, and is inhibited from

being generated when the magnetic head is driven in the inner direction of the floppy disk" (column 2, lines 5 through 10) neither teaches nor would have suggested "registering the transducer assembly [of the admitted prior art] at a first location of the disk proximate the ramp, and writing servo information indicative of a starting location of the data zone at the first disk location proximate a load/unload ramp situated near the outer periphery of the disk" (claim 1; brief, page 12), "moving the transducer assembly [of the admitted prior art] from engagement with the ramp to a first location on the disk proximate the ramp and writing servo information indicative of a starting location of the data zone at the first location" (claim 13; brief, page 12), "and a data storage disk . . . [in the admitted prior art] having a data zone architecture such that a starting location of the data zone is located proximate the ramp so as to bias the data zone toward the outer diameter of the disk" (claim 20; brief, page 12).

Based upon the foregoing, the 35 U.S.C. § 103 rejection of claims 1, 2, 5 through 7, 11 through 13, 15 and 19 through 23 is reversed because we agree with appellants' argument

(brief, page 13) that "a *prima facie* case of obviousness has not been established by the Examiner." The 35 U.S.C. § 103 rejection of claims 4, 8 through 10 and 16 through 18 is likewise reversed

because the teachings of Morehouse do not cure the noted shortcomings in the teachings of appellants' admitted prior art and Saito.

DECISION

The decision of the examiner rejecting claims 1, 2, 4 through 13 and 15 through 23 under 35 U.S.C. § 103 is reversed.

REVERSED

JAMES D. THOMAS Administrative Patent Judge	)	
KENNETH W. HAIRSTON Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
LANCE LEONARD BARRY Administrative Patent Judge	)	

KWH:hh

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